



SEQUENCE LISTING

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<120> METHODS AND COMPOUNDS FOR MODULATING NUCLEAR RECEPTOR
COACTIVAOR BINDING

<130> 9811-008-999

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<141> 1999-03-30

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<151> 1998-03-30

<160> 60

<170> PatentIn version 3.0

<210> 1

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<212> PRT

<213> Homo sapiens

<220>

<221> Variant

<222> (2)..(3)

<223> Xaa is any amino acid

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1 5

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<222> (3)..(4)

<223> Xaa is any amino acid

<400> 2

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1 5

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<223> Xaa is any amino acid

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TC 1700

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Phe Xaa Xaa Leu Trp
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Leu Gln Leu Leu Thr Thr Lys Ser Glu Gln Met Glu Pro Ser Pro Leu
              20              25              30
Ala Ser

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<220>
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 <223> Leu -->Phe

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 <223> Leu -->Phe

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 <222> (20)..(20)
 <223> Leu -->Phe

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 Pro Gly Ser Thr His Gly Thr Ser Leu Lys Glu Lys His Lys Ile Leu
 1 5 10 15
 His Arg Leu Leu Gln Asp Ser Ser Ser Pro Val Asp Leu Ala Lys Leu
 20 25 30
 Thr Ala

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<400> 7
 Glu Pro Ala Ser Pro Lys Lys Lys Glu Asn Ala Leu Leu Arg Tyr Leu
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 Leu Asp Lys Asp Asp Thr Lys Asp Ile Gly Leu Pro Glu Ile Thr
 20 25 30

<210> 8
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<400> 8
 Ala Asp Gly Gln Ser Arg Leu His Asp Ser Lys Gly Gln Thr Lys Leu
 1 5 10 15
 Leu Gln Leu Leu Thr Thr Lys Ser Glu Gln Met Glu Pro Ser Pro Leu
 20 25 30
 Ala Ser

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 <213> Homo sapiens

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 Ser Gly Ser Thr His Gly Thr Ser Leu Lys Glu Lys His Lys Ile Leu
 1 5 10 15
 His Arg Leu Leu Gln Asp Ser Ser Ser Pro Val Asp Leu Ala Lys Leu

20 25 30
 Thr Ala
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 1 5 10 15
 Leu Asp Lys Asp Asp Thr Lys Asp Ile Gly Leu Pro Glu Ile Thr
 20 25 30
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 Ala Glu Gly His Ser Arg Leu His Asp Ser Lys Gly Gln Thr Lys Leu
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 Leu Gln Leu Leu Thr Thr Lys Ser Glu Gln Met Glu Pro Ser Pro Leu
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 Pro Ser
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 His Arg Leu Leu Gln Asp Ser Ser Ser Pro Val Asp Leu Ala Lys Leu
 20 25 30
 Thr Ala
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 1 5 10 15
 Leu Asp Lys Asp Asp Thr Lys Asp Ile Gly Leu Pro Ser Ile Thr
 20 25 30
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 Ala Glu Asn Gln Arg Gly Pro Leu Glu Ser Lys Gly His Lys Lys Leu
 1 5 10 15
 Leu Gln Leu Leu Thr Cys Ser Ser Glu Asp Arg Gly His Ser Ser Leu
 20 25 30
 Thr Asn
 <210> 15
 <211> 34

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<400> 15
Thr Ser Asn Met His Gly Ser Leu Leu Gln Glu Lys His Arg Ile Leu
1 5 10 15
His Lys Leu Leu Gln Asn Gly Asn Ser Pro Ala Glu Val Ala Lys Ile
20 25 30
Thr Ala

<210> 16
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<213> Homo sapiens

<400> 16
Glu Gln Leu Ser Pro Lys Lys Lys Glu Asn Asn Ala Leu Leu Arg Tyr
1 5 10 15
Leu Leu Asp Arg Asp Asp Pro Ser Asp Val Leu Ala Lys Lys Leu Gln
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<210> 17
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<400> 17
Ala Glu Asn Gln Arg Gly Pro Leu Glu Ser Lys Gly His Lys Lys Leu
1 5 10 15
Leu Gln Leu Leu Thr Cys Ser Ser Asp Asp Arg Gly His Ser Ser Leu
20 25 30
Thr Asn

<210> 18
<211> 34
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<400> 18
Thr Ser Asn Met His Gly Ser Leu Leu Gln Glu Lys His Arg Ile Leu
1 5 10 15
His Lys Leu Leu Gln Asn Gly Asn Ser Pro Ala Glu Val Ala Lys Ile
20 25 30
Thr Ala

<210> 19
<211> 32
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<213> Homo sapiens

<400> 19
Glu Gln Leu Ser Pro Lys Lys Lys Glu Asn Asn Ala Leu Leu Arg Tyr
1 5 10 15
Leu Leu Asp Arg Asp Asp Pro Ser Asp Ala Leu Ser Lys Glu Leu Gln
20 25 30

<210> 20
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<400> 20
Ser Glu Thr Pro Arg Gly Pro Leu Glu Ser Lys Gly His Lys Lys Leu


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<211> 34
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<222> (26)..(34)
<223> Xaa is any amino acid

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1 5 10 15
Xaa Gln Leu Leu Thr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30
Xaa Xaa

<210> 27
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<213> Homo sapiens

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 <222> (29)..(29)
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 <222> (32)..(32)
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<400> 27
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Glu Xaa His Xaa Ile Leu
 1 5 10 15
 His Xaa Leu Leu Gln Xaa Xaa Xaa Ser Pro Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa

<210> 28
 <211> 34
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 <213> Homo sapiens

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<222> (25)..(32)

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<222> (34)..(34)

<223> Xaa is any amino acid

<400> 28

Glu Xaa Xaa Xaa Xaa Lys Lys Lys Glu Xaa Xaa Xaa Xaa Xaa Leu Leu

1 5 10 15

Arg Tyr Leu Leu Asp Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

20 25 30

Xaa Xaa

<210> 29

<211> 18

<212> PRT

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<400> 29

Thr Ser Leu Lys Glu Lys His Lys Leu Leu Arg Tyr Leu Leu Gln Asp

1 5 10 15

Ser Ser

<210> 30

<211> 33

<212> PRT

<213> Homo sapiens

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<223> Thr --> Arg (T281R)

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<222> (8)..(8)

<223> Val --> Arg (V284R)

<220>

<221> MUTAGEN

<222> (9)..(9)

<223> Asp --> Ala (D285A)

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<222> (12)..(12)

<223> Lys --> Ala (K288A)

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<223> Cys --> Arg (C298R)

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 <222> (30)..(30)
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 1 5 10 15
 Phe Cys Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys
 20 25 30
 Cys

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 <222> (7)..(7)
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 <223> Glu --> Lys (E457K)

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 Thr Pro Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met
 1 5 10 15
 Phe Ser Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys
 20 25 30
 Cys

<210> 33
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 Leu Phe Pro Pro Leu Phe Leu Glu Val Phe Glu Asp
 1 5 10
 <210> 34
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<400> 34
 Thr Lys Cys Ile Ile Lys Ile Val Glu Phe Ala Lys Arg Leu Pro Gly
 1 5 10 15
 Phe Thr Gly Leu Ser Ile Ala Asp Gln Ile Thr Leu Leu Lys Ala Ala
 20 25 30

Cys

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 Leu Phe Pro Pro Leu Phe Leu Glu Val Phe Glu Asp
 1 5 10

<210> 36
 <211> 33
 <212> PRT
 <213> Homo sapiens

<400> 36
 Asp Lys Gln Leu Phe Thr Leu Val Glu Trp Ala Lys Arg Ile Pro His
 1 5 10 15
 Phe Ser Glu Leu Pro Leu Asp Asp Gln Val Ile Leu Leu Lys Ala Gly
 20 25 30

Trp

<210> 37
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 <212> PRT
 <213> Homo sapiens

<400> 37
 Pro Ile Asp Thr Phe Leu Met Glu Met Leu Glu Ala
 1 5 10

<210> 38
 <211> 33
 <212> PRT
 <213> Homo sapiens

<400> 38
 Val Glu Ala Val Gln Glu Ile Thr Glu Tyr Ala Lys Asn Ile Pro Gly
 1 5 10 15
 Phe Ile Asn Leu Asp Leu Asn Asp Gln Val Thr Leu Leu Lys Tyr Gly
 20 25 30

Val

<210> 39
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 39
 Ser Leu His Pro Leu Leu Gln Glu Ile Tyr Lys Asp
 1 5 10

<210> 40
 <211> 33
 <212> PRT
 <213> Homo sapiens

<400> 40
 Ser Tyr Ser Ile Gln Lys Val Ile Gly Phe Ala Lys Met Ile Pro Gly
 1 5 10 15
 Phe Arg Asp Leu Thr Ser Glu Asp Gln Ile Val Leu Leu Lys Ser Ser

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                20                25                30
Ala
<210>  41
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<212>  PRT
<213>  Homo sapiens

<400>    41
Lys Leu Thr Pro Leu Val Leu Glu Val Phe Gly Asn
1              5              10
<210>  42
<211>  33
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<213>  Homo sapiens

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<222>  (26)..(26)
<223>  Val -->Arg (V376R)

<400>    42
Asp Arg Glu Leu Val His Met Ile Asn Trp Ala Lys Arg Val Pro Gly
1              5              10              15
Phe Val Asp Leu Thr Leu His Asp Gln Val His Leu Leu Glu Cys Ala
                20                25                30
Trp
<210>  43
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<213>  Homo sapiens

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<222>  (8)..(8)
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Pro Leu Tyr Asp Leu Leu Leu Glu Met Leu Asp Ala
1              5              10
<210>  44
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<212>  PRT
<213>  Homo sapiens

<400>    44
Gly Arg Gln Val Ile Ala Ala Val Lys Trp Ala Lys Ala Ile Pro Gly
1              5              10              15
Phe Arg Asn Leu His Leu Asp Asp Gln Met Thr Leu Leu Gln Tyr Ser
                20                25                30
Trp
<210>  45
<211>  12
<212>  PRT
<213>  Homo sapiens

<400>    45

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Glu Phe Pro Glu Met Leu Ala Glu Ile Ile Thr Asn
1 5 10

<210> 46

<211> 33

<212> PRT

<213> Homo sapiens

<400> 46

Glu Arg Gln Leu Leu Ser Val Val Lys Trp Ser Lys Ser Leu Pro Gly
1 5 10 15
Phe Arg Asn Leu His Ile Asp Asp Gln Ile Thr Leu Ile Gln Tyr Ser
20 25 30

Trp

<210> 47

<211> 12

<212> PRT

<213> Homo sapiens

<400> 47

Glu Phe Pro Glu Met Met Ser Glu Val Ile Ala Ala
1 5 10

<210> 48

<211> 33

<212> PRT

<213> Homo sapiens

<400> 48

Gly Lys Gln Met Ile Gln Val Val Lys Trp Ala Lys Val Leu Pro Gly
1 5 10 15
Phe Lys Asn Leu Pro Leu Glu Asp Gln Ile Thr Leu Ile Gln Tyr Ser
20 25 30

Trp

<210> 49

<211> 12

<212> PRT

<213> Homo sapiens

<400> 49

Glu Phe Pro Ala Met Leu Val Glu Ile Ile Ser Asp
1 5 10

<210> 50

<211> 33

<212> PRT

<213> Homo sapiens

<400> 50

Glu Arg Gln Leu Val His Val Val Lys Trp Ala Lys Ala Leu Pro Gly
1 5 10 15
Phe Arg Asn Leu His Val Asp Asp Gln Met Ala Val Ile Gln Tyr Ser
20 25 30

Trp

<210> 51

<211> 12

<212> PRT

<213> Homo sapiens

<400> 51

Asp Phe Pro Glu Met Met Ala Glu Ile Ile Ser Val
1 5 10

<210> 52

<211> 251

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<213> Homo sapiens

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<220>
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1 5 10 15
Ala Ala His Val Ala Thr Asn Ala Gln Gly Ser His Trp Lys Asn Lys
20 25 30
Arg Lys Phe Leu Pro Glu Asp Ile Gly Gln Ala Pro Xaa Xaa Xaa Xaa
35 40 45
Xaa Xaa Xaa Xaa Lys Val Asp Leu Glu Ala Phe Ser His Phe Thr Lys
50 55 60
Ile Ile Thr Pro Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu
65 70 75 80
Pro Met Phe Cys Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys
85 90 95
Gly Cys Cys Met Glu Ile Met Ser Leu Arg Ala Ala Val Arg Tyr Asp
100 105 110
Pro Glu Ser Glu Thr Leu Thr Leu Asn Gly Glu Met Ala Val Thr Arg
115 120 125
Gly Gln Leu Lys Asn Gly Gly Leu Gly Val Val Ser Asp Ala Ile Phe
130 135 140
Asp Leu Gly Met Ser Leu Ser Ser Phe Asn Leu Asp Asp Thr Glu Val
145 150 155 160
Ala Leu Leu Gln Ala Val Leu Leu Met Ser Ser Asp Arg Pro Gly Leu
165 170 175
Ala Cys Val Ala Arg Ile Glu Lys Tyr Gln Asp Ser Phe Leu Leu Ala
180 185 190
Phe Glu His Tyr Ile Asn Tyr Arg Lys His His Val Thr His Phe Trp
195 200 205
Pro Lys Leu Leu Met Lys Val Thr Asp Leu Arg Met Ile Gly Ala Cys
210 215 220
His Ala Ser Arg Phe Leu His Met Lys Val Glu Cys Pro Thr Glu Leu
225 230 235 240
Phe Pro Pro Leu Phe Leu Glu Val Phe Glu Asp
245 250

<210> 53
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<220>
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<400> 53
Lys Pro Glu Pro Thr Asp Glu Glu Trp Glu Leu Ile Lys Thr Val Thr
1 5 10 15

Ala	Ala	His	Val	Ala	Thr	Asn	Ala	Gln	Gly	Ser	His	Trp	Lys	Asn	Lys
		20						25					30		
Arg	Lys	Phe	Leu	Pro	Glu	Asp	Ile	Gly	Gln	Ala	Pro	Xaa	Xaa	Xaa	Xaa
	35						40					45			
Xaa	Xaa	Gly	Gly	Lys	Val	Asp	Leu	Glu	Ala	Phe	Ser	His	Phe	Thr	Lys
	50					55					60				
Ile	Ile	Thr	Pro	Ala	Ile	Thr	Arg	Val	Val	Asp	Phe	Ala	Lys	Lys	Leu
65					70					75					80
Pro	Met	Phe	Cys	Glu	Leu	Pro	Cys	Glu	Asp	Gln	Ile	Ile	Leu	Leu	Lys
			85						90					95	
Gly	Cys	Cys	Met	Glu	Ile	Met	Ser	Leu	Arg	Ala	Ala	Val	Arg	Tyr	Asp
			100					105					110		
Pro	Glu	Ser	Glu	Thr	Leu	Thr	Leu	Asn	Gly	Glu	Met	Ala	Val	Thr	Arg
	115							120					125		
Gly	Gln	Leu	Lys	Asn	Gly	Gly	Leu	Gly	Val	Val	Ser	Asp	Ala	Ile	Phe
	130					135					140				
Asp	Leu	Gly	Met	Ser	Leu	Ser	Ser	Phe	Asn	Leu	Asp	Asp	Thr	Glu	Val
145					150					155					160
Ala	Leu	Leu	Gln	Ala	Val	Leu	Leu	Met	Ser	Ser	Asp	Arg	Pro	Gly	Leu
			165						170					175	
Ala	Cys	Val	Ala	Arg	Ile	Glu	Lys	Tyr	Gln	Asp	Ser	Phe	Leu	Leu	Ala
			180					185					190		
Phe	Glu	His	Tyr	Ile	Asn	Tyr	Arg	Lys	His	His	Val	Thr	His	Phe	Trp
	195						200					205			
Pro	Lys	Leu	Leu	Met	Lys	Val	Thr	Asp	Leu	Arg	Met	Ile	Gly	Ala	Cys
	210					215					220				
His	Ala	Ser	Arg	Phe	Leu	His	Met	Lys	Val	Glu	Cys	Pro	Thr	Glu	Leu
225					230					235					240
Phe	Pro	Pro	Leu	Phe	Leu	Glu	Val	Phe	Glu	Asp					
			245						250						

<210> 54
 <211> 13
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Position 1 corresponds to position 686 of mature peptide

<400>	54											
Lys	His	Lys	Ile	Leu	His	Arg	Leu	Leu	Gln	Asp	Ser	Ser
1			5						10			

<210> 55
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 <212> PRT
 <213> Homo sapiens

<220>
 <223> Position 1 corresponds to position 688 of mature peptide

<400>	55							
Lys	Ile	Leu	His	Arg	Leu	Leu	Gln	Asp
1			5					

<210> 56
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 <213> Homo sapiens

<220>
 <223> Position 1 corresponds to position 305 of mature peptide

<400> 56
 Ser Leu Ala Leu Ser Leu Thr Ala Asp Gln Met Val Ser Ala Leu Leu
 1 5 10 15
 Asp Ala Glu Pro Pro Ile Leu Tyr Ser Glu Tyr Asp Pro Thr Arg Pro
 20 25 30
 Phe Ser Glu Ala Ser Met Met Gly Leu Leu Thr Asn Leu Ala Asp Arg
 35 40 45
 Glu Leu Val His Met Ile Asn Trp Ala Lys Arg Val Pro Gly Phe Val
 50 55 60
 Asp Leu Thr Leu His Asp Gln Val His Leu Leu Glu Cys Ala Trp Leu
 65 70 75 80
 Glu Ile Leu Met Ile Gly Leu Val Trp Arg Ser Met Glu His Pro Gly
 85 90 95
 Lys Leu Leu Phe Ala Pro Asn Leu Leu Asp Arg Asn Gln Gly Lys
 100 105 110
 Cys Val Glu Gly Met Val Glu Ile Phe Asp Met Leu Leu Ala Thr Ser
 115 120 125
 Ser Arg Phe Arg Met Met Asn Leu Gln Gly Glu Glu Phe Val Cys Leu
 130 135 140
 Lys Ser Ile Ile Leu Leu Asn Ser Gly Val Tyr Thr Phe Leu Ser Ser
 145 150 155 160
 Thr Leu Lys Ser Leu Glu Glu Lys Asp His Ile His Arg Val Leu Asp
 165 170 175
 Lys Ile Thr Asp Thr Leu Ile His Leu Met Ala Lys Ala Gly Leu Thr
 180 185 190
 Leu Gln Gln Gln His Gln Arg Leu Ala Gln Leu Leu Leu Ile Leu Ser
 195 200 205
 His Ile Arg His Met Ser Asn Lys Gly Met Glu His Leu Tyr Ser Met
 210 215 220
 Lys Cys Lys Asn Val Val Pro Leu Tyr Asp Leu Leu Leu Glu Met Leu
 225 230 235 240
 Asp Ala His Arg Leu
 245

<210> 57
 <211> 237
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Position 1 corresponds to position 305 of mature peptide

<400> 57
 Ser Leu Ala Leu Ser Leu Thr Ala Asp Gln Met Val Ser Ala Leu Leu
 1 5 10 15
 Asp Ala Glu Pro Pro Ile Leu Tyr Ser Glu Tyr Asp Pro Thr Arg Pro
 20 25 30
 Phe Ser Glu Ala Ser Met Met Gly Leu Leu Thr Asn Leu Ala Asp Arg
 35 40 45
 Glu Leu Val His Met Ile Asn Trp Ala Lys Lys Arg Val Pro Gly Phe
 50 55 60
 Val Asp Leu Thr Leu His Asp Gln Val His Leu Glu Cys Ala Trp
 65 70 75 80
 Leu Glu Ile Leu Met Ile Gly Leu Val Trp Arg Ser Met Glu His Pro
 85 90 95
 Gly Lys Leu Leu Phe Ala Pro Asn Leu Leu Leu Asp Arg Asn Gln Gly
 100 105 110
 Lys Cys Val Gly Gly Met Val Glu Ile Phe Asp Met Leu Leu Ala Thr
 115 120 125
 Ser Ser Arg Phe Arg Met Met Asn Leu Gln Gly Glu Glu Phe Val Cys
 130 135 140
 Leu Lys Ser Ile Ile Leu Leu Asn Ser Gly Val Tyr Thr Phe Glu Lys

Ala His Arg Leu His Ala
245

<210> 60

<211> 11

<212> PRT

<213> Homo sapiens

<220>

<223> Position 1 corresponds to position 686 of mature peptide

<400> 60

Lys His Lys Ile Leu His Arg Leu Leu Gln Asp

1

5

10